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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/884,429

06/18/2001

David Chazan

01-052410US

9951

21569 7590 02/23/2007  
CALIPER LIFE SCIENCES, INC.  
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EXAMINER

GORDON, BRIAN R

ART UNIT

PAPER NUMBER

1743

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

02/23/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

09/884,429

Applicant(s)

CHAZAN ET AL.

Examiner

Brian R. Gordon

Art Unit

1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13,28-31,33-45 and 79-81 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13, 28-31, 33-45, 79-81 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 25, 2007 has been entered.

### ***Response to Arguments***

2. Applicant's arguments, see remarks, filed January 25, 2007, with respect to the rejection(s) of claim(s) 13, 28-31, 33-77, and 79-81 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tagge et al. US 7,033,840.

### ***Claim Rejections - 35 USC § 112***

3. Claims 31 and 79 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 31 recites "from an edge of a nearest microchannel or a nearest port", it is unclear if applicant intends to claim the device comprise microchannels and ports for the claim or any preceding claims do not positively claim such limitations.

As to claim 79, there is no antecedent basis for "the venting element".

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claim 13, 28, 30-31, and 79-80 are rejected under 35 U.S.C. 102(e) as being anticipated by Tagge et al. US 7,033,840.

Tagge et al. discloses array is fabricated from a substrate, typically comprising one or more materials selected from silicon, doped silicon, silicon dioxide, doped silicon dioxide, steel, sapphire, glass materials, ceramic materials and plastic materials. It is also possible to have an array comprising a hybrid substrate, with different sections made from different materials. For instance, it may be desirable to bond together a glass plate having wells and channels machined and/or etched therein, with a silicon wafer that forms the bottom of the wells. Other acceptable materials will be evident to one of ordinary skill in the art.

The array includes a plurality of components such as wells (cavities) (9) and channels (8) (see column 9, line 6-column 11, line 43; figure 1h) the respective elements are not in fluid communication.

In one embodiment, the invention relates to an array made from stainless steel. In this embodiment, a 3 1/8 inch X 7/8 inch X 5/8 inch thick stainless steel block, was drilled to produce 96 wells, where the wells had a diameter of 3 mm, were drilled in an area of 1 1/2 X 2 1/8 inches, and formed by drilling an 8 X 12 grid of holes 3 mm in diameter. The dimensions of the holes and the height of the reactor can be modified for smaller or larger wells. Typical dimensions for the wells in an array comprising stainless steel may range from 0.1 microliter to 1 mL, 5 microliter to 500 microliter, and/or 25 microliter to 100 microliter. In this particular example, the holes taper at the bottom of the array to lead to 1 mm diameter holes at the bottom. The spacing of the holes is such that they are compatible to conventional pipettors and combinatorial work stations. In this example, the holes are spaced 4.5 mm apart. A second block of stainless steel, of similar length and depth and corresponding holes is also used as a backing plate. In this embodiment, the hole size was 2 mm in diameter, although the hole size may be even smaller. In this embodiment the thickness was 1/4 inch, although the thickness can be even less. Depending on the size of the array, the thermal channels may be made by conventional drilling techniques, as will be evident to one of ordinary skill in the art.

6. Claims 29 and 33-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Ho et al., US 5,426,400.

Ho et al. discloses a device including substrate layers (50 and 48). Channels 60 and 70 intersect while channel 58 is parallel to channel 60 and does not intersect channel 70 as well.

***Claim Rejections - 35 USC § 103***

Art Unit: 1743

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 35-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ho et al.

Ho et al. states: "Obviously, many modifications and variations of the present invention are possible in light of the above teachings." (col. 4, Lines 38-40)

Ho et al. disclose the device is manufactured from an etching process.

It would have been obvious to etch multiple channels/networks with a single substrate for efficiency and achieve high throughput of the manufacture of the devices.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Coassin et al. and Baliga et al. disclose devices comprising multiple cavities.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian R. Gordon whose telephone number is 571-272-1258. The examiner can normally be reached on M-F, with 2nd and 4th F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1743

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
brg

**BRIAN R. GORDON**  
**PRIMARY EXAMINER**